



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 8
999 18TH STREET - SUITE 300
DENVER, CO 80202-2466
<http://www.epa.gov/region08>

SDMS Document ID



2030989

April 6, 2004

Ref: 8EPR-SR

Michael W. Fraser
Thomas, Dean, & Hoskins, Inc.
690 North Meridian, Suite 101
Kalispell, MT 59901

RE: Johnston Acres Water and Sewer Project

Dear Michael:

This letter is to provide information and guidance regarding your future utility work in the Johnston Acres area of Libby, MT. Your planned project with the City of Libby is within the area of concern for the Libby Asbestos Superfund Site and it is possible that you may encounter soil containing vermiculite or other asbestos containing material during your work. We appreciate your early request for information and your proactive approach to dealing with potential soil contamination. If handled prudently, I expect your work would be affected only minimally.

As Attachment 1 of this letter, I have included all of the sampling and visual inspection information we currently have available for the project area. The majority of this information was collected during a study entitled the "Contaminant Screening Study (CSS)." The CSS was the first phase of a detailed Remedial Investigation of the Libby area. During the CSS, EPA visited nearly all properties in the Libby area and conducted interviews, visual inspections, and soil sampling. The purpose of the CSS was to collect readily available information and classify all properties in Libby as (1) requiring cleanup, (2) likely not requiring cleanup, or (3) needing additional investigation to aid in decision making. Outdoor areas were inspected and sampled; 0-6" below the surface of garden, flowerbed, and driveway samples, and 0-1" below the surface of yard soils. No observations were made or samples collected for any outdoor soils below these depths.

EPA used several criteria to interpret the results of the CSS. These criteria are set forth in a recently published document entitled "Technical Memorandum, Action Level and Clearance Criteria, Libby Asbestos Site." I've included a copy of this memorandum (Attachment 2) which may help you interpret the results of the information we provided, as well as helping you design any future inspections, sampling, and work practices. You should pay particular attention to the section addressing soil action levels and rationale.



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Measuring asbestos in soils, and assessing risk from those measurements, is not straightforward. There are many uncertainties, and the situation in Libby is somewhat unique. Given what we know at this time, the Technical Memorandum clearly explains our current criteria for action in outdoor soils for Libby. Our response depends on many factors including the nature of the material itself as well as the potential for exposure to the material. Our guidelines can serve as a basis for your own program and decisions, recognizing that in most cases you will be working outdoors in a well-ventilated area, for a limited time, and in soils that are at depth or will remain below hard surfaces. Applying the decision criteria we've developed to your work leads to the following basic principles:

- Significant soil contamination is generally limited to areas where contaminated materials were placed. This means contamination is usually found in specific areas where Libby asbestos containing materials were used or deposited, such as in a particular yard, garden, or area. We have not seen a pattern of aerial deposition. Most soils in Libby are thus free of contamination, at least down to the levels we are able to measure. In most circumstances, but not always, high levels of asbestos are associated with contamination that one can see. We shape our work based on this basic principle.
- Soils with substantial amounts of visible vermiculite or vermiculite mine waste, or with sampling results showing levels of Libby asbestos of greater than or equal to 1%, are considered to be highly contaminated. These soils should be avoided if possible, or if not possible, treated with extreme caution and handled as hazardous, asbestos-containing material. Even short-term exposures to these materials are likely to cause excessive risk. If available, sampling results are considered more accurate than visual inspection, but sampling is not always practical or necessary.
- Soils with lesser amounts of visible vermiculite or mine waste, or soils with sampling results showing levels of Libby asbestos less than 1%, are considered to be significantly contaminated. In general, these soils should be treated with caution and handled with care, but are of lesser concern, especially for short-term exposures. However, when we deal with these materials, we generally treat them the same as heavily contaminated soils - mostly because of the frequency with which we encounter them. Again, sampling results are more accurate than visual inspection.
- Soils with lesser amounts of visible vermiculite or mine waste that also have sampling results showing no measurable Libby asbestos, are still considered likely to contain low levels of Libby asbestos (e.g. cannot be measured at current detection limit). In general, these soils may present some risk, but relative to the other categories, are of less concern. These soils should be handled with basic precautions.
- Soils with no visible vermiculite are generally considered free of contamination. Again, a sample result for such soil would be more definitive.

We recommend that you review our sampling information, and develop a pre-construction sampling program to augment that information as necessary to support your

work. For instance, our sampling data may suggest that a particular yard contained visible vermiculite, but you may wish to visit that yard to look closely at the specific area of excavation and/or collect samples. Similarly, we did not generally sample below hard surfaces such as roads, or in many right-of-ways. Occasionally we have found that underground piping was "packed" with vermiculite. You may want to perform exploratory inspection and sampling in areas that you know will be excavated. Conducting inspection and/or sampling before you work may allow you to avoid areas of contamination or be better prepared for areas you must work in. How, and if, you conduct such sampling is up to you.

Your work plan and approach should contain plans for dealing with the situations above, including contingencies for unexpected contamination. The materials you encounter need not be removed if they are contaminated, though this may be preferable in some situations. At a minimum, the work approach should ensure that workers are protected from exposure, that applicable legal requirements (if any) are satisfied, and that contamination does not migrate. In general, EPA will not be able to assist you with cleanup or protective measures during your work, and you will have to deal with any situations you encounter. You are welcome to review our relevant documents on work approach, health and safety, equipment and personal decontamination, and other aspects of our cleanup operations to aid in developing your plans. We've also developed a fact sheet for Libby residents entitled "Living With Vermiculite" (Attachment 3) that addresses short-term exposures such as you may encounter.

While we likely will not perform any response actions to aid in your work, EPA will assist you in several ways, just as we will assist residents of Libby facing similar situations:

- We will have representatives available to help you assess situations or interpret sampling data. We can provide guidance based upon our experience in Libby, recognizing that you ultimately are responsible for the work.
- We can provide guidance on sample collection and analysis, and you may utilize our labs (at your cost) for analysis of any soil or other samples you collect.
- We may collect and analyze soil samples at our discretion to aid in assessing the situation.
- We would like to have some of your workers wear a personal air sampler throughout the project. We will collect and analyze these samples at no cost to you. This will ensure significant exposures are not occurring and provide us valuable data for future decision making.
- Though again, the work is your responsibility, we will assist you in ensuring the work is conducted safely.
- If disposal of small amounts of soil is necessary, you may utilize the EPA-operated asbestos cell at the Lincoln County Landfill. If larger amounts need to be disposed of, we would need to discuss disposal at the former vermiculite mine.

Most soils in Libby are free of contamination. However, there are certainly areas of concern, and it pays to be cautious and proactive. Libby asbestos is particularly toxic and should not be treated lightly. It is likely that, at most, you will encounter soils with low levels of potential contamination. These situations can be dealt with easily through simple and practical means, such as keeping the area wet during work. If you do encounter highly contaminated soils, you may be able to plan or work around them. If not, your work need not stop, but there would likely be additional costs and delays to get the work done safely. If you encounter a very unexpected and severe situation, we will work with you to develop a plan and may be able to assist you in responding.

We look forward to working with you and the City of Libby further on the Johnston Acres project. If you have additional questions, please feel free to contact me at (303) 312-6748.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Christiansen', with a stylized, flowing script.

**Jim Christiansen
Remedial Project Manager**

Attachments (3)

Johnston Acres Project vermiculite assessment map and spreadsheet –

Explanation of the spreadsheet and map:

All exterior areas on a property were inspected in accordance with the directives of the EPA Libby Asbestos Project. Sample collection was conducted for all yard soils, while flowerbeds and gardens were sampled if no visual vermiculite was observed. (There are occasional exceptions to this rule, but in general any flowerbed or garden with visible vermiculite is not sampled, and soils are removed).

Outdoor areas were inspected and sampled; 0-6" below the surface of garden, flowerbed, and driveway soils, and 0-1" below the surface of yard soils. **No observations were made or samples collected for any outdoor soils below these depths.**

The spreadsheet indicates the two types of information obtained during inspections:

- **Visual Vermiculite Inspection** and;
 - **Sample Result Information**
- NOTE - Where samples were collected but have not yet been analyzed, it is indicated on the spreadsheet as sample results "pending".

Spreadsheet Legend	
NA	Not Applicable
ND	Non-Detect*
TR	Trace *
<1	less than 1 percent by weight*
>1	greater than 1 percent by weight*
Map and Spreadsheet Color Codes	
No Information Available	Yellow
Removal Complete	Red
No Visual Vermiculite, AND sample results are all Non-Detect	Green
Visual Vermiculite and/or Sample Results available	White

*Samples are analyzed for Libby Asbestos minerals

How to Use the Map:

The map represents the Johnston Acres work zone. Properties are color-coded according to the type of information available (see table). Use the spreadsheet to review information for a particular property.

Color Chart(s)

The following pages
contain color that does
not appear in the
scanned images.

To view the actual images, please
contact the Superfund Records
Center at (303) 312-6473.

Address - Johnston Acres Project		Visible Vermiculite Inspection				Sample Results Received	Comments	Sample Result Information			
		Flowerbed	Garden	Yard	Former Garden			Flowerbed	Garden	Driveway	Yard
1302	Airth Ave	X				NA	Removal Complete	ND	ND	ND	ND TR, back yard
1304	Airth Ave					Yes					
1306	Airth Ave					Yes					
				driveway							
1305	Airth Ave	X	X	X		Yes		ND	ND		TR, back yard ND
1309	Airth Ave					Yes					
1303	Main Ave					Yes					
1321	Main Ave	X	X			Yes		ND		ND	ND
								ND		ND	ND
1409	Main Ave					Yes		ND		ND	ND
1411	Main Ave					Yes					
1421	Main Ave					NA	Removal Complete				
				perimeter area							
1511	Main Ave #2					Yes	Trailer Park	ND, front and side yard	ND, side yard		ND, front & side yard
1511	Main Ave #6					Yes	Trailer Park	ND, front and side yard		ND, front yard	ND, front and side yard
1511	Main Ave #9					NA	No Information				
1511	Main Ave #12					NA	No Information				
1511	Main Ave #13					Yes	Trailer Park	ND, back yard			ND, all yard areas
1511	Main Ave #14					NA	No Information				
1511	Main Ave #17					Yes	Trailer Park	ND, front yard			ND, all yard areas
1511	Main Ave #20					NA	No Information				
1613	Main Ave	X		X		Yes		ND		TR, front yard	TR, back yard
1615	Main Ave		X		X	Yes		TR, front yard	ND	ND	ND
1619	Main Ave					NA	No Information				
1621	Main Ave					NA	Removal Complete				
	Corner of Main Ave and W. Balsam St (Libby Cycle)			X		Yes				ND	TR, front side yard & side yard S
1024	Montana Ave - St. John's - KVC6					NA	Removal Complete				

Address - Johnston Acres Project		Flowerbed	Visible Vermiculite Inspection			Other	Sample Results Received	Comments	Sample Result Information			
			Garden	Yard	Former Garden				Flowerbed	Garden	Driveway	Yard
1028	Montana Ave						Yes					ND
1104	Montana Ave	X	X	X			Yes	No Information Removal Complete	ND		ND	ND
1108	Montana Ave						NA					
1118	Montana Ave			W. Yard Excavated			NA					
1120	Montana Ave		X	X			Yes		ND		ND	TR, back yard
1204	Montana Ave			X			Yes	Pending				ND
1212	Montana Ave						No					
1214	Montana Ave	X	X	X			Yes		TR, front & back yard	<1, S, E, & W of house	TR, under carport	ND
1218	Montana Ave	X	X	X			Yes					ND
1302	Montana Ave	X				driveway	Yes	Pending	ND		ND	ND
1312	Montana Ave		X				Yes					TR, back yard
1322	Montana Ave						No					
1408	Montana Ave	X			X		Yes	Pending Pending	TR, back yard	2, former garden	ND	TR, front, side yard
1414	Montana Ave	X	X			stockpile	Yes		ND			
1420	Montana Ave				X		Yes			TR, side yard	ND	TR, side yard
2	Pine Court			X			No					
4	Pine Ct		X			walkway at N. side of house	No					
116	E. Balsam St		X		X		Yes		ND		ND	ND
102	W. Balsam St #1,2,3,&4						No	Pending No Information	TR-back and front yard		ND	ND
104	W. Balsam St						NA					
106	W. Balsam St						Yes	Pending			ND	<1, back yard
110	W. Balsam St	X	X				No					
112	W. Balsam St	X	X									
103	W. Balsam St	X	X	X		driveway	Yes	highest of CSS and PDI	TR-back, front,side yard			<1, side yard
111	W. Balsam St	X		X			Yes					ND, back and front yard
208	W. Balsam St		X				Yes	highest of Phase I, CSS and PDI	ND	<1	ND	TR, side yard
210	W. Balsam St	X		X, N. yard		walkway under porch	Yes					3%, yard composite
												<1, walkway
213	W. Balsam St	X		X			Yes		<1, flower garden		ND	<1 front yard

Address - Johnston Acres Project		Visible Vermiculite Inspection				Sample Results Received	Comments	Sample Result Information			
		Flowerbed	Garden	Yard	Former Garden			Flowerbed	Garden	Driveway	Yard
233	W. Balsam St					NA	No Information				
108	W. Cedar St		X	X		Yes					ND
112	W. Cedar St					Yes		ND		ND	ND
118	W. Cedar St					Yes					
124	W. Cedar St	X	X			Yes	ND		<1		
109	W. Cedar St - Church Residence	X		X		No	Pending				
115	W. Cedar St					NA	No Information				
121	W. Cedar St	X	X			Yes		ND			ND
125	W. Cedar St					No	Pending				
208	W. Cedar St					NA	No Information				
220	W. Cedar St				X	No	Pending				
225	W. Cedar St	X				Yes		TR, side yard		ND	ND
237	W. Cedar St					Yes			TR, front & back garden		ND
102	E. Larch St					No	Pending				
108	E. Larch St					Yes				ND	ND
203	E. Larch St					Yes				ND	ND
104	W. Larch St					Yes					ND
110	W. Larch St					Yes		ND	ND		ND
109	W. Larch St	X	X			Yes			<1	ND	ND
131	W. Larch St	X	X	X	X	Yes		ND		TR, front driveway	ND
123	W. Larch St					No	Pending				
200	W. Larch St - Christ Lutheran Church					Yes		ND			ND
210	W. Larch St		X			No	Pending				
214	W. Larch St					NA	Interior Only				
222	W. Larch St	X		X		Yes				ND	ND
236	W. Larch St					NA	Removal Complete				
240	W. Larch St					NA	Interior Only				
246	W. Larch St					Yes		<1, house flowerbed	ND		ND, shed
221	W. Larch St				X	Yes		ND		ND	ND
233	W. Larch St					NA	Interior Only				
237	W. Larch St	X				Yes		ND			ND
103	E. Oak St					NA	No Information				
115	E. Oak St					Yes		ND		ND	ND

Address - Johnston Acres Project		Visible Vermiculite Inspection					Sample Results Received	Comments	Sample Result Information			
		Flowerbed	Garden	Yard	Former Garden	Other			Flowerbed	Garden	Driveway	Yard
117	E. Oak St						Yes		ND		ND	ND
103	W. Oak St						No	Pending				
109	W. Oak St						NA	Removal Complete				
113	W. Oak St						NA	Removal Complete				
119	W. Oak St						No	Pending				
103	E. Poplar St						No	Pending				
110	E. Poplar St	X	X				Yes		ND		ND	<1, front & side yard
109	W. Poplar St - St Luke's Episcopal	X		X			No	Pending				
113	W. Poplar St						Yes		ND		ND	ND
121	W. Poplar St	X					No	Pending				
103	W. Poplar St						NA	No Information				
118	W. Poplar St						Yes					TR, E yard nearest road TR, E yard behind garage TR, front yard hedges/shrubs
206	W. Poplar St						NA	No Information				
210	W. Poplar St						Yes		TR, front, back, side yard	ND	ND	ND
218	W. Poplar St						No	Pending				
220	W. Poplar St	X	X		X	rock garden	Yes		ND		ND	<1, basement
222	W. Poplar St				X		NA	Removal Complete				
201	W. Poplar St						NA	No Information				
205	W. Poplar St - Saint Luke Episcopal Church						Yes		ND		ND	ND
219	W. Poplar St		X	X			Yes		ND		ND	ND
221	W. Poplar St		X	X			Yes			<1		<1
223	W. Poplar St	X					Yes					ND
237	W. Poplar St						Yes		ND		ND	ND
111	W. Spruce St					No vermiculite observed	Yes	ND				
113	W. Spruce St	X		X			Yes		TR, back and front yard	ND	ND	ND
115	W. Spruce St						Yes		ND		ND	ND
117	W. Spruce St						NA	No Information				
119	W. Spruce St						NA	No Information				
201	W. Spruce St						Yes		ND		ND	ND
205	W. Spruce St						Yes		TR, front, back and side yard		ND	ND
213	W. Spruce St	X		X		walkway- gravel area	NA	Pending				

Address - Johnston Acres Project		Visible Vermiculite Inspection				Sample Results Received	Comments	Sample Result Information			
		Flowerbed	Garden	Yard	Former Garden			Flowerbed	Garden	Driveway	Yard
3	Spruce Ct.						No Information				
1205	Washington Ave	X				Yes		ND	ND		ND
1211	Washington Ave					Yes		TR, back and front yard	ND	ND	ND
1215	Washington Ave					No	Pending				
1217	Washington Ave			X		No	Pending				
1304	Washington Ave					Yes				TR, front driveway	ND, all yard areas
1308	Washington Ave					Yes				TR, front driveway	ND, all yard areas
1310	Washington Ave			X		No	Pending				
1316	Washington Ave	X		X	X	No	Pending				
1303	Washington Ave			N E Yard Excavated		NA	Removal Complete				
1305	Washington Ave					NA	No information				
1309	Washington Ave					NA	No information				
1408	Washington Ave					NA	Pending				
1412	Washington Ave					Yes		ND		ND	ND
1409	Washington Ave					NA	Removal Complete				
1417	Washington Ave										
	Alley 108					No	Pending				
	Alley 110					No	Pending				
	Alley 111					No	Pending				
	Alley 113					No	Pending				

TARGET SHEET
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